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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,338	10/31/2001	Joseph G. Souza	MS164031.1 (4934)	5199

321 7590 10/06/2004

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

PERVEEN, REHANA

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,338

Applicant(s)

SOUZA ET AL.

Examiner

Rehana Perveen

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/01, 1/03, 6/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Urade et al, Patent No. 6,272,644.

As to claims 1, 17, 25, and 27, Urade et al teach sending an idle request from a first device (USB Hub 11, figure 3) to a second device (host computer) when the first device is ready to suspend, and the first device waiting to receive a call from the second device to a callback function (embedded function 45, figure 4) associated with the first device to suspend the first device, wherein the first device is connected to the second device via a communication medium (Root port 13, figure 3, col. 4 lines 53-65).

As to claim 2, Urade et al teach the second device is a computer (host computer, col. 3 lines 40-43) and the first device is a peripheral component associated with the computer (USB Hub 11, figure 3).

As to claim 3, Urade et al teach the peripheral component is selected from a group consisting of a composite device, a root hub, and a controller (USB Hub 11, figure 3).

As to claims 4 and 26, Urade et al teach the sending and waiting occur via a driver controlling the first device (Embedded Function 45, figure 3).

As to claim 5, Urade et al teach the first device has an active state and an idle state and wherein the first device is ready to suspend when in the idle state (col. 4 lines 7-65 and col. 6 lines 44-54).

As to claim 6, Urade et al teach the first device comprises one of a plurality of nodes organized in a tree structure and the first device comprises a child node of the second device (inherent for the USB structure, col. 3 lines 21-59).

As to claims 8, 28, 29, and 32, Urade et al teach the nodes in the tree are connected via a USB and suspending a USB host controller (figure 3, col. 3 lines 21-59).

As to claim 9, Urade et al teach the first device has one or more child nodes in the tree structure (devices connected to ports 1-4, figure 3), and wherein the first device

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is ready to suspend when each of the one or more child nodes of the first device is ready to suspend (inherently when the hub is powered down, all connected devices are also powered down, figure 3).

As to claims 10-12, Urade et al teach the first device receiving an idle request from at least one of the child nodes of the first device and propagating (relaying) the idle request, by inductively traversing the tree structure, from the first device to a controller at the root of the tree structure (figures 3 and 5, col. 4 line 7- col. 5 line 9).

As to claim 13, Urade et al teach propagating the idle request comprises transmitting the received idle request from the first device to the second device if the first device is ready to suspend and if the first device has received an idle request from each of the child nodes of the first device (col. 4 line 48 – col. 5 line 9).

As to claim 14, Urade et al teach determining whether the first device has received an idle request from each of the child nodes of the first device, waiting receive an idle request from each of the child nodes if an idle request from each of the child nodes has not been received, and submitting an idle request to the second device if the first device has received an idle request from each of the child nodes (col. 6 lines 59-61).

As to claims 15, 16, 30, and 31, Urade et al teach receiving an idle request comprises receiving an I/O control request, which comprises an I/O request packet, by the controller from one or more child device (col. 5 line 61 – col. 6 line 16).

As to claims 18-22, Urade et al teach waking the first device, waking occurs in response to the first device signaling the second device that the first device is ready to wake or the second device signaling the first device to wake or one of the child nodes signaling the first device to wake (col. 5 lines 10-60), and waking comprises resetting the sent idle requests (col. 6 lines 66-67).

As to claim 23, Urade et al teach sending a cancel request from the first device to the second device when the first device is no longer ready to suspend, said cancel request occurring after sending the idle request (col. 5 lines 1-28).

As to claim 24, Urade et al teach a third device sending an idle request to the second device when the third device is ready to suspend and suspending simultaneously with the first device, said third device having I/O control and function independent from the first device (inherent for an USB network of more than one USB Hub connected to the host computer, col. 1 lines 9-47).

Claims 7 and 33-50 are directed to the computer readable media of method claims 1-6 and 8-32. Urade et al teach the method as set forth in claims 1-6 and 8-32.

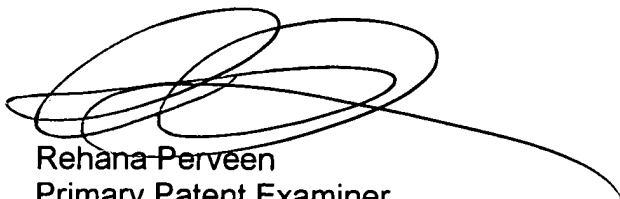
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Therefore, Urade et al also teach the computer readable media as set forth in claims 7 and 33-50.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rehana Perveen whose telephone number is 571-272-3676. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rehana Perveen
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Technology Center 2100